

C2 11. (Amended) The combination of claim 21<sup>4</sup> wherein the ignition sensor comprises a light detector.

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12. (Twice Amended) A method for timing a Harley Davidson type engine having a timing port through which a timing mark indicative of a position of a movable member of the engine can be seen, the method comprising:

securing a variable reluctance sensor proximate the timing port of the Harley Davidson type engine;  
sensing the presence of the timing mark of the engine with the variable reluctance sensor and providing a timing mark signal as a function thereof;

C3 sensing an occurrence of an ignition spark and providing an ignition signal as a function thereof;

filtering ignition sparks of compression strokes from ignition sparks of compression and exhaust strokes of a selected cylinder and providing a filtered ignition signal being indicative of only the ignition sparks of compression strokes;

generating a delayed signal having a selected delay from the filtered ignition signal;

comparing the timing mark signal to the delayed signal and providing an output signal indicative of substantial simultaneous occurrence of the timing mark signal and the delayed signal; and

operating an indicator as a function of the output signal.

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C4 1/5. (Amended) The method of claim 1/2 wherein filtering comprises comparing the ignition signal with a selected threshold.

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1/6. (Amended) The method of claim 1/2 wherein filtering comprises: detecting a peak amplitude of the ignition signal; and forming the selected threshold as a function of the ignition signal from at least one previous spark.

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C5 2/1. (Amended) A combination comprising:

a Harley Davidson type engine having a timing port and a timing mark indicative of a position of a movable member, wherein the Harley Davidson type engine provides ignition sparks for compression strokes and exhaust strokes to a selected cylinder;

an ignition timing device including:

a variable reluctance sensor secured in the timing port to provide a timing mark signal indicative of presence of the timing mark;

an ignition sensor adapted to provide an ignition signal indicative of the occurrence of an ignition spark;

a filter receiving the ignition signal and to provide a filtered ignition signal, the filter filtering ignition sparks of compression strokes from ignition sparks of compression and exhaust strokes of the selected cylinder;

a delay element receiving the filtered ignition signal and providing a delayed signal having

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a selected delay from the filtered ignition signal;

a comparator receiving the timing mark signal and the delayed signal, the comparator providing an output signal indicative of substantial simultaneous occurrence of the timing mark signal and the delayed signal; and

an indicator receiving the output signal and operable as a function thereof.

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<sup>1</sup>  
~~26~~. (Amended) The combination of claim ~~21~~ wherein the filter includes a comparator, wherein the filtered ignition signal is indicative of a spark exceeding a selected threshold.

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<sup>8</sup>  
~~26~~. (Amended) The combination of claim ~~26~~ wherein the selected threshold is constant.

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<sup>8</sup>  
~~27~~. (Amended) The combination of claim ~~25~~ and further comprising a peak detector, and wherein the selected threshold is a function of at least one previous detected spark.